

DOBRY, E.; NOVAK, I. [Novak, J.]

Plastic materials used in blood transfusion. Probl. gemat. i perel.
Krovi 8 no.9:50-51 S '63. (MIRA 17:9)

1. Iz Instituta gematologii i perelivaniya krovi (dir. - chlen-
korrespondent Chekhoslovatskoy Akademii nauk prof. Ya. Gorzheyshi
[Gorejsi, J.]), Praga.

CZECHOSLOVAKIA

V. BRABEC, J. FIALA and E. DOBRY, Institute for Hematology and Blood Transfusion (Ustav hematologie a krevni transfuze,) Chief (reditel) Prof Dr J. MOREJSI, Dr Sc. Prague.

"Saccharose as Erythrocyte Preservative."

Prague, Casopis Lekaru Ceskych, Vol 102, No 2, 11 Jan 63; pp 43-46.

Abstract [English summary modified]: Replacement of part of the glucose in the aqueous solution (containing also Na citrate and citric acid) which is added to human blood to be stored and preserved for 2 to 4 weeks does decrease hemolysis and osmotic erythrocyte fragility (in 0.6% NaCl) as well as glycolytic activity but it does not prolong survival of the RBCs in the circulation of the recipient of blood so preserved. Six tables, 3 graphs; 4 Czech, 1 Soviet and 11 Western references.

1/1

NOVAK, J., MUDr.; DOBRY, E., MUDr.; RUZICKOVA, V., CSc.

Activity of some regional transfusion services in 1963. Cesk.
zdrav. 12 no.11:556-564 N '64

1. Ustav hematologie a krevni transfuze v Praze, Ministerstvo
zdravotnictvi, odbor LP 3.

DOBRY, E., MDr., CSc.; NOVAK, J., MDr.; RUZICKOVA, V.

Use of transfusion preparations in various branches of medicine
in 1964. Cesk. zdrav. 13 no.7/8:388-394 Ag '65.

1. Ustav hematologie a krevni transfuze v Praze, Ministerstvo
zdravotnictvi, oddeleni LP 2.

DOBRY, E.

Remarks on the present status of problems of the transfusion services. Cas. lek. cesk. 104 no.34:926-929 27 Ag '65.

1. Ustav hematologie a krevni transfuze v Praze (reditel prof. dr. J. Horejsi, DrSc.).

Hematology

CZECHOSLOVAKIA

UDC 615.381.018.53-035-4

~~DOBRY, E.~~ Institute of Hematology and of Blood Transfusions
(Ustav Hematologie a Krevni Transfuzie), Prague, Director (Reditel) Prof Dr J. HOREJSI.

"Transfusion of Human Leucocytes. II."

Prague, Casopis Lekarů Ceskych, Vol 105, No 40, 30 Sep 66, pp 1090 - 1091

Abstract [Author's English summary modified]: Leucocyte transfusion is not developed far enough to be considered part of common therapeutic practice. No specific disease where such a transfusion is indicated is known. Leucocyte transfusion should be performed only as part of a research problem. Serious post-transfusion complications should always be considered, for they cannot be prevented at the present time. 15 Western, 5 Czech, 12 Russian, 1 Japanese reference. (Manuscript received Jul 65).

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CZECHOSLOVAKIA/Pharmacology and Toxicology - Analeptics.

V-4

Abs Jour : Ref Zhur - Biol., No 21, 1953, 98492

Author : Vondracek, V., Dobry, J.

Inst * : -

Title : Ritalin-A-New Psychomimetic Drug.

Orig Pub : Ceskosl. psychiatr., 1953, 54, No 2, 88-93

Abstract : No abstract.

← Psychiatricka klinika KU v PRAZE. V.V. PRAHA 2, Ke Karlovu II.

Card 1/1

- 13 -

DOBIAS, Jan; DOBRY, Jaroslav; PETRAN, Vaclav

Decompensation of abnormal personalities in marital life. Cesk. psychiat.
54 no.4:223-228 Aug 58.

1. Psychiatricka klinika KU v Praze. J. D., Ke Karlovu 11, Praha 2.
(PERSONALITY, PATHOLOGICAL
psychopaths, showing hypererotism in marital life (Cz))
(SEXUAL BEHAVIOR
hypererotism of psychopaths in marital life (Cz))
(MARRIAGE
same)

CZECHOSLOVAKIA

PLZAK, M.; DOBRY, J.; ZAMKAL, A.; Psychiatric Clinic of the Faculty of General Medicine of the Charles University [Psychiatricka Klinika Fakulty Vseobecneho Lekarstvi KU], Prague; Psychiatric Hospital [Psychiatricka Lecebna], Horni Berkovice.

"Tissue Therapy According to Jarosz in the Treatment of the Depressive Neurasthenic Type of Arteriosclerosis of the Cerebral Arteries."

Prague, Ceskoslovenska Psychiatrie, Vol 59, No 5, 1963, pp 319-322

Abstract: Jarosz' modification of tissue therapy was tested in a group of 23 patients. All had confirmed symptoms of depressive neurasthenic arteriosclerosis of the cerebral arteries. The results were very encouraging. Treatment does not involve any complications and is very easily applied.
2 Tables, no references.

1/1

DOBRY, J.

Existentialism and psychotherapy. Critical review. Cesk. psychiat.
60 no.3:195-199 Je'64

1. Psychiatricka klinika fakulty vseobecneho lekarstvi KÚ
[Karlovy university], Praha.

DOBRY, JAROSLAV

Manufacture and ramming of the carboniferous lining for blast furnaces. Jaroslav Dobry (Ceramic Lab. S.O.N.P. Kladno, Czech. ~~Industry~~ *Liby* 7, 010-27(1982). Best conditions for the prepn. of the carboniferous lining (I) around the hearth of blast furnaces have been established. Coke should be mixed with 13% of pitch at 80°. The amt. of ash in coke is very important. Pitch should be fully freed from light fractions. The mixt. should always be tested after mixing, after ramming, and after sintering. Details are given for proper ramming in the blast furnace. Merits and shortcomings of I in blast furnaces are discussed. Frank J. Hendel

Handwritten initials

DOBRY, J.

Journal of the Iron and Steel Inst
June 1954
Properties and Tests

A Miniature Hardness Tester of Czechoslovakian Construction. J. Dobry. (*Hutnická Listy*, 1953, 8, (6), 301-303). [In Czech]. A description is given of a hardness tester 20 in. long, weighing 3 lb., suitable for measuring Vicker's and Brinell hardness.—P. r.

7-28-54

DOBRY, J.

Effect of the shape of the testing rod on the impact ductility. p. 771.
STROJIRENSTVI, Prague, Vol. 4, no. 10, Oct. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
June 1956, Uncl.

DOBRY, J.

Basic lining of electric-arc furnaces producing stainless low-carbon steel.

p. 907 (Hutnicke Listy) Vol. 12, no. 10, Oct. 1957, Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (BEAI) LC, VOL. 7, NO. 1, JAN. 1958

DOBRY, Jaroslav; TICHY, Karel

Use of carbonaceous materials in foundries. Slevarenstvi 10 no.4:140-142 Ap '62.

1. Spojene ocelarny, n.p., Kladno (for Dobry). 2. Prvni brnenska strojirna, Zavod Klementa Gettwalda, Brno (for Tichy)

10731-66

ACC NR: AP6004564

SOURCE CODE: CZ/0083/65/000/003/0169/0171

AUTHOR: Dobry, J.--Dobryy, Ya. (Prague)

ORG: Psychiatric Clinic, Faculty of General Medicine, Charles University, Prague
(Psychiatricka klinika fakulty vseobecneho lekarstvi KU)

37
3

TITLE: Substrate and function

SOURCE: Ceskoslovenska psychiatrie, no. 3, 1965, 169-171

TOPIC TAGS: morphology, psychiatry, cybernetics, bionics 4

ABSTRACT:

The problem of relation between the disturbed functional substrate and the disturbed function in mental diseases is discussed. Even when we know the details of the lesion of the substrate, we can apply it only by an analogy, while trying to explain a disturbed function. Therefore a classification system cannot be accurate. When a method allowing causal explanation of the function by the study of the structure of the substrate is established, psychiatry will reach a situation similar to that of descriptive sciences using comparative morphology. Elementary action using accumulation of elements for transmitting and storing of information can be expressed as a function of formal logic. This action conforms to the laws of functioning of the CNS and can be studied on the psychological level. These functions may be performed by the

Card 1/2

L 10731-66

ACC NR: AP6004564

neurons themselves. JPRS

SUB CODE: 06 / SUBM DATE: none

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2/2

L 34710-66

ACC NR: AP6025226

SOURCE CODE: CZ/0083/65/000/004/0261/0266

AUTHOR: Dobry, J. (Prague)

ORG: Psychiatric Clinic, Faculty of General Medicine, Charles University, Prague
(Psychiatricka klinika fakulty vseobecneho lekarstvi KU)

TITLE: Presenile psychoses

SOURCE: Ceskoslovenska psychiatrie, no. 4, 1965, 261-266

TOPIC TAGS: psychophysiology, nervous system disease

ABSTRACT: The disease appears usually at the age of 50 to 60, but in some cases it appears even before the age of 40. The clinical symptoms consist of intellect deterioration, loss of memory, and mental confusion. Some examples of cases described by other authors are reviewed. The disease resembles decortication. Connection between pregnancy and the disease is mentioned. Various symptoms that may be observed in patients suffering from the disease are described. The disease is always progressive. Atrophy of the brain is not limited to the cortex; the white matter is affected very frequently. [JPRS]

SUB CODE: 06 / SUBM DATE: none

DOBRY, J.

The substrate and function. *Cesk. psychiat.* 61 no.3:169-171
Je '65.

1. Psychiatricka klinika fakulty vseobecneho lekarstvi Karlovy
University v Praze.

CZECHOSLOVAKIA

DOBRY, J.: Psychiatric Clinic, Faculty of General Medicine, Charles University (Psychitaricka Klinika Fak. Vseob. Lek. KU), Prague

"Tentative Classification of Atypical and Mixed Psychoses."

Prague, Ceskoslovenska Psychiatrie, Vol 63, No 1, Feb 67, pp 40-44

Abstract [Author's English summary modified]: The classification is based on observations of typical manifestations in endogenous psychoses; these are determined by the brain tissue and its function. The 2 parameters that can be determined are the psychopathological picture and the time characteristics. These characteristics are either periodical or have a tendency towards a defect. The fact of a typical or an atypical picture at the beginning of the disease is also used as an important classification criterion. 4 Western, 4 Czech references. (Manuscript received 21 Mar 66).

DOBRY, JOSEF

DOBRY, Josef, MUDr.

Experience with determination of partial compensation to invalids.
Cesk. zdravot. 5 no.9:526-528 Sept 57.

1. Predseda OPKSZ, odbor soc. zabezpeci rady ONV v Mlade Boleslavi.
(WORKMEN'S COMPENSATION AND INSURANCE
partial compensation (Cz))

DOBRY, Karel

Experience with care for agricultural workers in the Broumov Region
with special reference to work hygiene and health education. Prac.
lek. 13 no.8/9:427-429 N. '61.

1. ONZ Nachod.

(AGRICULTURE) (HEALTH EDUCATION)

Dobry, M.

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their
Application. Ceramics. Glass. Binders. Concrete.

H-13

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15351.

Author : Dobry M., Stepanek V.

Inst : _____

Title : Technology of Concrete from Moravian Tuffs

Orig Pub: Stavivo, 1957, 35, No 7, 266-270

Abstract: No abstract.

Card : 1/1

DOBRY, M.

TECHNOLOGY

Periodical: STAVIVO. Vol 36, no. 12, Dec. 1958.

DOBRY, M. A new type of lightweight tuff-concrete block, p. 476.

A discussion of the use of concrete of volumetric weight 150 kg/m^3 for the production of building blocks.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

DOBRY, M., inz.

New method of making annular well rings in the National Enterprise
Severomoravska Prefa. Stavivo 41 no.2:46-48 F '63.

1. Severomoravska Prefa, n.p., Olomouc.

DOBRY, Oldrich, ins.

Effect of the shape of the lumberyard on handling material.
Drevo 17 no.3:71-74 Mr '62.

1. Sdruzeni podniku drevarskeho prumyslu, Praha.

DOBRY, Oldrich, inz.

Making full use of machinery and of factory rooms. Drevo 18 no.2:
51-53,58 F '63.

1. Sdruzeni podniku drevarského prumyslu, Praha.

KAPLAN, Z.A.; DOBRYAK, A.I.

Mistakes in the diagnosis of diphtheria of the eyes. Zdrav. Belor.
6 no. 5:29-30 My '60. (MIRA 13:10)

1. Kafedra infektsionnykh bolezney Belorusskogo instituta
usovershenstvovaniya vrachey (ispolnyayushchiy obyazannosti
zaveduyushchego kafedroy - dotsent I.V. Bondareva) i infektsionnaya
bol'nitsa (glavnyy vrach Z.G. Alikina).
(EYE—DISEASES AND DEFECTS) (DIPHTHERIA)

BESSONOVA, M.N.; KAPLAN, Z.A. [deceased]; DOBRYAK, A.N.

Clinical aspects of salmonellosis Breslau (typhimurium) in children. Zdrav.Bel. 8 no.7:36-38 J1 '62. (MIRA 15:11)

1. Iz kafedry infektsionnykh bolezney Belorusskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey (zav. kafedroy - prof. M.N.Bessonova) i Minskoy infektsionnoy bol'nitsy (glavnyy vrach Z.G.Alikina).

(SALMONELLA INFECTIONS)

DOBRYAK, R. P.

USSR

Methods of utilization and cultivation of solonchaks under the conditions of the Kirghiz S.S.R. S. I. Fecher, S. N. Zolotarev, E. A. Tontal, R. P. Dobryak, and L. A. Dash-evskii. *Trudy Pochvennogo Inst. im. V. V. Dokuchaeva, Akad. Nauk S.S.S.R.* 44, 307-27(1954).—These saline soils have a mineral content that is predominantly Ca, Na, and Mg sulfate, in that order, with an av. depth of ground water of 150 cm. Irrigation removes 25% of the Mg and Cl and 50% of the Na or, expressed as total salts, 45 tons/ha. Parallel freshening of ground waters occurs. Lucerne culture lowers the level of salinization, increases the total humus content, and causes general improvement of all agrophys. properties. Yields of garden-beet seeds and sugar-beet roots were studied. A. W. Daly

DOBRYAK, S.

Help of the marine club. Voen. znan. 37 no.12:31 D '61.

(MIRA 14:11)

1. Nachal'nik Kolomenskogo morskogo kluba, Kolomna, Moskovskiy obl.
(Kolomna--Ship models)

DOBRYAK, V.A.; YERMEYAN, G.P.

Raising the qualifications of engineers and technicians. Avt.dor.
21 no.9:24-25 § '58. (MIRA 11:11)
(Road construction workers)

DOBRYAK, V. I.

DOBRYAK, V. I. "A Forensic-Medical Evaluation of Wounds to the Pleura and Lungs by Pointed and Pointed-Cutting Weapons." Odessa State Medical Inst imeni N. I. Pirogov. Odessa, 1955. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya Letopis', No. 19, 1956.

DOBRYAK, V.I.; KIRICHINSKIY, B.R.

Some possibilities with the microroentgenography method in the examination of bone tissue. Sud.-med. ekspert. 7 no.4:13-18
O-D '64 (MIRA 18:1)

1. Kiyevskiy nauchno-issledovatel'skiy institut gigiyeny truda i professional'nykh zabolevaniy (direktor - prof. L.I.Medved') i Institut fiziologii imeni A.A. Bogomol'tsa (direktor - prof. A.F. Makarchenko AN UkrSSR, Kiyev.

DOBRYAKOV, A., polkovnik; LYUTOV, I., polkovnik

Example of the organization and execution of tactical training with
a battalion. Voen. vest. 38 no.9:47-53 S '58. (MIRA 11:9)
(Motorization, Military)

DOBRYAKOV, A., inzh.-polkovnik; GULYY, G., inzh.-podpolkovnik

Manometer needle was stopped. Starsh.-serzh. no.4(7):27 Ap
'61. (MIRA 14:7)
(Tanks (Military science))

S/875/62/000/000/004/010
D237/D308

10.6100

AUTHOR: Dobryakov, A.A.

TITLE: The influence of normal pressure on the stability of a cylindrical shell under a transverse load and a bending moment

SOURCE: Nekotoryye voprosy mekhaniki; sbornik statey. Ed. by V.I. Feodos'yev. Moscow, Oborongiz, 1962, 33-50

TEXT: The author investigates the influence of the normal pressure on the loss of stability of a shell, subjected to a transverse force Q and a bending moment M , acting in the plane of Q . The case of a shell subjected to bending and torsional moments has been dealt with by V.M. Darevskiy and others and differs from the present case only by the fact that a torsional moment produces a homogeneous peripheral stress, while a transverse load Q results in an inhomogeneous stress. Hence, the author utilizes the results of other workers, adapting them to the present case. Making some simplifying assumptions, the author determines the range of relative (l/R) lengths of

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The influence of normal pressure ...

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D237/D308

the cylinder, within which the loss of stability due to shearing stress may occur, and obtains the relation $\tau_{cr} = f(h, R, l, p)$ where τ_{cr} is the critical tangential stress due to Q. The range is found to be $0 < (l/R) < 4$, and formulas are given for the critical load (Q_{cr}), which on experimental check gave an accuracy ranging from 3-5% to 11-21%. There are 16 figures.

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Card 2/2

ДОБРЯКОВ, А. И.

Dobryakov, A. I. "Perspectivity and affinity in the service of building up intersections and shadows in architecture", Sbornik Trudov (osk. inzh.-stroit. in-t in. Kuybysheva), No. 6, 1948, p. 66-84.

So: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, no. 12, 1949).

BOGOYAVLENSKIY, Vladimir Pavlovich; VOLKOV, Petr Vasil'yevich;
DOBRYAKOV, Anatoliy Vasil'yevich; SMORODINA, Tat'yana
Aleksandrovna, kand. fiz.-matem. nauk; OTRYASHENKOV, Yu.,
kand. tekhn. nauk, dots., retsenzent; AZI, N.E., inzh.,
retsenzent; AFANAS'YEVA, A.V., inzh., retsenzent;
KULIKOV, V.N., red.

[Laboratory studies on the physics and metrics of semi-
conductor devices] Laboratorno-prakticheskie raboty po
fizike i metrike poluprovodnikovyykh priborov. Moskva, Pro-
sveshchenie, 1965. 94 p. (MIRA 18:8)

DOBRYAKOV, B.

Sewerage

Technical and economical indexes for storm sewers. Zhil. - kom. khoz. 2 no. 3, 1952.

Monthly List of Russian Accessions, Library
of Congress, July 1952. UNCLASSIFIED.

DOERYAKOV, B. N.

Cand. Tech. Sci

"Disinfection of Drinking Water With Ultraviolet Rays Under Conditions of the Postwar Restoration Period." Sub 27 May 47, Moscow Inst of Engineers of Municipal Construction

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

FEDOROV, V.N.; GLADCHENKO, I.P.; AUDRING, V.V.; DOBRYAKOV, B.N.

Equipment and methods of manufacturing articles from glass reinforced plastics by the spraying method. Plast.massy no.7:54-58
'61. (MIRA 14:7)

(Glass reinforced plastics)

RYBAK, L.L., inzh.; DOBRYAKOV, B.N., kand.tekhn.nauk

Sanitary engineering products made of plastic. Stroi. mat. 9
no.4:23-24 Ap '63. (MIRA 16:5)
(Plastics) (Sanitary engineering—Equipment and supplies)

BULGAKOV, P.P.; DOBRYAKOV, B.S.

Method for protein fraction electrophoresis in the blood serum.
Lab.delo 8 no.5:34-35 My '62. (MIRA 15:12)

1. Klinika obshchey khirurgii (zav. - prof. B.A.Polyanskiy)
Novosibirskogo meditsinskogo instituta (rektor - zasluzhennyy
deyatel' nauki prof. G.D.Zalesskiy).
(PAPER ELECTROPHORESIS)(BLOOD PROTEINS)

DOBRYAKOV, B.S., kand.med.nauk; ISAYENKO, V.I.

Two cases of torsion of dermoid cysts in girls 4 and 5 years of age.
Akush. i gin. no.2:149 '65. (MIRA 18:10)

1. Khirurgicheskoye otdeleniye (zav. - kand.med.nauk B.S.Dobryakov)
Kuybyshevskoy Tsentral'noy rayonnoy i gorodskoy bol'nitsy
Novosibirskoy oblasti (glavnyy vrach N.A.Moiseyenko).

DOBRYAKOV, D.D., Cand Tech Sci -- (diss) "Low-temperature heaters with the inductively winding inside the ferromagnetic body." Len, 1959, 15 pp with drawings (Min of Higher Education USSR. Len Electrical Engineering Inst in V.I. Ul'yanov (Lenin)) 150 copies. List of author's works pp 14-15 (10 titles) (KL, 35-59, 114)

- 34 -

PLAZA I BOOK EXHIBITION 807/7173

Elektronicheskyye protsessy v metalakh (Electromagnetic Processes in Metals) Riga, Izdatel'stvo Latvinskoy SSR, 1979. 300 p. (Serbian: Iuz: Trudy, No. 11) Krieva alip izdavae. 1,000 copies printed.

Ed.: A. Tsvetkovskiy; Tech. Ed.: A. Kuznetsov; Editorial Board: V. G. Vitol, I. E. Kabanov, I. K. Erko (Serb. Ed.), and Ye. Ye. Klyavin.

Notes: This book is intended for physicists interested in electromagnetic processes in metals.

CONTENTS: This is a collection of fifteen articles by various authors on the investigation of electromagnetic processes in metals by modeling. Individual articles treat the following: conditions necessary for modeling particular phenomena; modeling the magnetization of ferromagnetic metals in a variable field on an oriented network consisting of thin coils with random reactions and how the response of the network to the field of a permanent magnet has been investigated in a constant uniform field oriented along the axis; the possibility of using galvanic baths and other models for investigating fields with continuously distributed electromagnetic forces, particularly turbulent fields; the magnetization of a system of interacting cylindrical particles; determination of the criterion relationships for the motion of an asynchronous engine rotor with similar mechanical characteristics (rotational moment, period of rotational oscillations around a point of equilibrium and alternation ratio) when the slip is close to unity; the problem of computing the ponderomotive forces acting on a cylindrical conducting body placed in the traveling magnetic field of a cylinder; the interaction of a sphere in a magnetic field; the extraction and retention of hydrogen from a sphere by induction; the effect of the induction of two ideal incompressible liquids with infinite conductivity on the boundary of a traveling magnetic field; the operating principles of dc pumps and the computation of their electromagnetic and hydraulic characteristics; abbreviating computations in designing linear induction pumps as suggested by I. A. Tyutin; nomographic computation of functions $\psi(k, h)$ and $\psi(k, b)$; and the contribution of heaters producing thermal energy by an induced current. No personalities are mentioned. References accompany the articles.

Elektronicheskyye protsessy v metalakh (Electromagnetic Processes in Metals) Riga, Izdatel'stvo Latvinskoy SSR, 1979. 300 p.

Ed.: A. Tsvetkovskiy; Tech. Ed.: A. Kuznetsov; Editorial Board: V. G. Vitol, I. E. Kabanov, I. K. Erko (Serb. Ed.), and Ye. Ye. Klyavin.

Notes: This book is intended for physicists interested in electromagnetic processes in metals.

Orderovyye M.F. Some Problems of Magnetizing a System of Interacting Cylindrical Particles 57

Kabanov, I.K. Relationship Between the Magnetic Losses in a Ferrite Core With an Open Magnetic Circuit 73

Kuznetsov, A.E. Oscillatory Motion of a Conducting Axially Symmetrical Body in a Rotating Magnetic Field 85

Kuznetsov, A.E. Problem of a Conducting Cylinder in a Traveling Magnetic Field of a Cylindrical Inductor 107

Ostrikov, A.F. The Motion of a Sphere in a Viscous Conducting Fluid in a Longitudinal Magnetic Field 121

Demery, B. Ye., and V. Ye. Kuznetsov. Behavior of Rotomagnetic Vents at the Boundary of Two Media 129

Kabanov, I. K., Tyutin, I. A., Tyutin (deceased), and Ye. Ye. Tyutin. Motion of an Inductively Long Channel With Liquid Metal in a Traveling Magnetic Field 145

Kabanov, I. K. Calculation of DC Conduction Pumps for Liquid Metals 155

Tyutin, I. A. Use of Nomograms for Determining the Parameters of Induction Pumps 165

Tyutin, I. A. and Tyutin, I. A. Nomographic Calculation of Functions $\psi(k, h)$ and $\psi(k, b)$ 181

Dobryakov, D. D. Low-Temperature Induction Heaters With an Operating Cylindrical Cross-Section in the Channel 187

← D. D. Dobryakov

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1068, 3108, 1538, 1482, 1144

31625
S/197/61/000/012/003/003
B117/B108

AUTHORS: Dobryakov, D., Krumin', Yu., Klyavin', Ya., Nikolayev, V.

TITLE: Investigation of the possibility of conveying spherical
conductive bodies by means of a magnetic traveling field

PERIODICAL: Akademiya nauk Latviyskoy SSR. Izvestiya, no. 12 (173), 1961,
55 - 60

TEXT: Ponderomotive forces were determined, which are necessary for
conveying solid and hollow spheres placed in the magnetic traveling field
of a cylindrical inductor. Experiments were conducted to convey solid
spheres of various materials in a magnetic traveling field inductor under
dynamic conditions. For the motion of a sphere in a tube, an approximate
equation was derived under the following assumptions: (1) the friction is
proportional to the velocity of the sphere, $F_{\text{friction}} = kv$; (2) the
acceleration of the sphere is constant, $dv/dz = a = \text{const.}$; (3) the
electromagnetic force F_{em} does not change with velocity (holds for a small
range of velocities); (4) the energy consumed by the rotation of the sphere
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Investigation of the possibility...

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during its motion is neglected (holds for angle α close to 90°). The final equation is: $F_1 = (a/g) + \sin\alpha$, where $F_1 = (F_{em} - F_{friction})/mg$ ($m =$ mass of the sphere). This equation was checked experimentally (Fig. 5). The abscissae \bar{H} are the ratios between the field in the inductor and the field at which the sphere floats (then, $\bar{H} = 1$). The measurements were made for 3 angles of inclination of the tube (inductor): $\alpha = 90^\circ$, 60° , and 30° . The field in the inductor, in the direction of its propagation, does not take an exactly sinusoidal course, so that stronger and weaker field sections alternate along this direction. At a certain field strength, a stronger field section develops below the sphere, which keeps it from falling. Above the sphere, a weaker field section develops, not sufficiently strong to lift it. This mechanism keeps the sphere afloat. Spheres of different materials but equal diameter have equal F_1 -versus- \bar{H} curves at every specific angle. The mean velocity of the sphere was also calculated. It is shown as a function of \bar{H} in Fig. 6. \bar{v} is the ratio between velocity of the sphere in the presence of the field and the fall velocity without magnetic field. The absolute values of \bar{v} are plotted as ordinates. It is characteristic that all experimental points for all angles lie on a common

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Investigation of the possibility...

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S/197/61/000/012/003/003

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curve and are distributed among 3 sections: section (a) characterizes deceleration, (b) the floating suspension, and (c) the lifting of the sphere. Copper- and aluminum spheres were used in the experiments. For lifting tin and lead spheres, very high field strengths are necessary which were not reached in the experiments. Nevertheless, the experimental points showed the tendency of lying on the common curves (Figs. 5, 6). The investigations permit determining the parameters of ponderomotive conveyers. There are 6 figures and 2 Soviet references.

ASSOCIATION: Institut fiziki AN Latv. SSR (Institute of Physics AS
Latviyskaya SSR)

SUBMITTED: April 5, 1961

Card 3/5

32012
S/089762/012/001/018/019
B102/B138

21.5152

AUTHORS: Dobryakov, D. D., Kirko, I. M.

TITLE: Electromagnetic transportation of containers

PERIODICAL: Atomnaya energiya, v. 12, no. 1, 1962, 80 - 84

TEXT: An electromagnetic method is described, for the transportation of containers filled with irradiated substances from the reactor core to the hot chamber. This method is based on the interaction of induction currents excited by electromagnetic fields. The cylindrical containers are transported through an aluminum tube direct from the core to the hot chamber (Fig. 1). The inductor coil is made of insulated aluminum wire and is connected with a three-phase travelling field system. Transportation pipe and coil are enclosed in a water-tight aluminum tube when passing through the water-filled reactor tank. The container is also made of pure aluminum. A prototype rabbit was tested. Its dimensions were: inner diameter of Al-tube: 46 mm; coil: 84 turns of insulated Cu wire, 4.5 or 13.5 cm high. Leader cylinders: 44 mm diameter, 44 mm height. With 7 leader cylinders the rabbit has a total weight of ~2 kg
Card 1/3

Electromagnetic transportation...

32012
S/089/62/012/001/018/019
R102/B138

(leader ~1200 g, leader containers ~200 g, and 5 containers with ~150 g) and the irradiated substance weighs ~350 - 400 g. With a total length of 8.5 m the model had 72 coils (24 per phase). Two coils per phase were used as decelerators. The inductor was connected with the 380/220 V a-c net. At an inductor current of 65 a the lifting capacity is ~3 kg, i. e. with a 2-kg rabbit a speed of ~5 m/sec can be developed. After prototype tests a rabbit of this type was constructed for an IPT-1000 (IRT-1000) reactor. It only differs in size from the prototype: It is 15 m long, the load channel 7.8 m. The inductor consists of 174 coils. The authors thank Yu. K. Krumin and A. K. Summanis for help in constructing the prototype and Yu. F. Chernilin for advice. There are 5 figures.

Fig. 1. Electromagnetic rabbit for transportation of containers from the core to the hot chamber

LEGEND: 1 - core, 2 - load channel, 3 - connection with control desk, 4 - platform, 5 - tank, 6 - hot chamber, 7 - transportation channel, 8 - casing, 9 - transporter, 10 - induction winding, 11 - tube for leads.

Card 2/3

Electromagnetic transportation...

32012
S/089/62/012/001/018/019
B102/B138

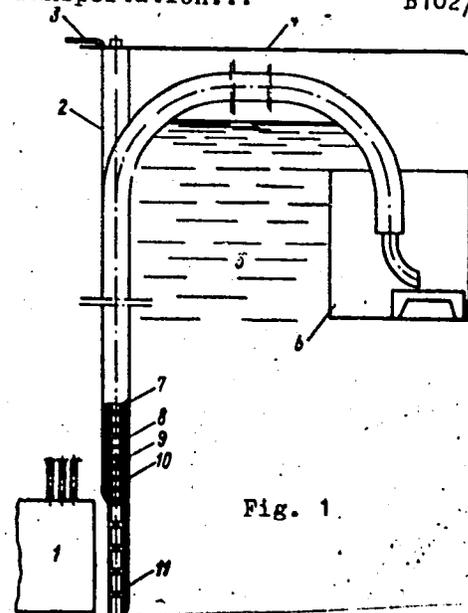


Fig. 1

Card 3/3

S/197/63/000/002/005/005
B117/B186

AUTHORS: Dobryakov, D., Nikolayev, V., Saulite, U.

TITLE: Electromagnetic rabbit transport for atomic reactors

PERIODICAL: Akademiya nauk Latvyskoy SSR. Izvestiya, no. 2 (187), 1963,
68-74

TEXT: The rabbit conveyor for atomic reactors here described was developed at the Institut fiziki AN Latv. SSR (Institute of Physics AS LatSSR). This transport system utilizes one of the channels arranged vertically along the periphery of the active zone for rapidly transporting the rabbits (transport time of the order of several seconds) from the hot cave into the active zone and after exposure to irradiation back to the hot cave. The electromagnetic rabbit conveyor has the following principal parts: 1) Mechanical assembly; 2) inductance coil; 3) operational control circuit; 4) automatic cut-off unit for the power supply of the inductor. The mechanical assembly comprises the transport channel, a divergent cone with a support and a jacket. The conveyor is the movable part. The transport channel is an aluminum tube 15 m long (52 mm inner diameter, 1 mm wall thickness), connecting the active zone with the hot cave. The rabbit conveyor for transporting the rabbits with the substance to be

Card 1/2

Electromagnetic rabbit transport for ...

S/197/63/000/002/005/005
B117/B186

irradiated comprises: cylindrical guides, carriers and rabbits (6 cylinders and 5 rabbits with the payload). Its motive force is a three-phase electromagnetic field within the channel (4 sec from the hot cave into the active zone and 3.5 sec on the way back). The winding consists of 150 coils, divided into two parallel circuits (72 and 78 coils), of which 30 are used for slowing down the conveyer when it enters the hot cave. For a payload of 300 g, an amperage of 230-340 a is necessary to lift the conveyer, weighing 2000 g, whereas 160-170 a are required for slowing it down. An aluminum blanket which is the load-bearing part of the entire construction protects the winding from moisture. A special circuit diagram, including the possibility of automatic control provides for the progressive motion of the conveyer. The principal parts of the control unit are: Control console, automatic control and time-lag relay. In view of the radiation effect the most suitable constructional material for the electromagnetic transport is pure aluminum. All tests of the system, subjected to real working conditions, gave positive results. The power of the device is about 200 kva. There are 5 figures.

ASSOCIATION: Institut fiziki AN Latv. SSR (Institute of Physics AS LatSSR)

SUBMITTED: September 26, 1962
Card 2/2

118

DOBRYAKOV, F. V.

Replacing Seignette salt with glycerol in the Nylander reagent. *F. V. Dobryakov. Lab. Prakt. (U. S. S. R.) 16, No. 3, 32(1941).*—The reagent consists of 2 g. $\text{Bi}(\text{NO}_3)_3$ + 4 g. glycerol (both these substances can be preliminarily mixed in a mortar) + 100 ml. of 10% NaOH (or KOH). In testing urine for sugar take 1 ml. of this reagent for 5 ml. of urine. W. R. Henn

Common Elements

Metals

Non-Metals

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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DOBRYAKOV, F.V.

Research and Development

Determination of the hemoglobin color index. Klin.med., Moskva 29
(CLML 20:7)
no.3:82-84 Mar 51.

1. Lt. Col., Medical Corps.

DOERYAKOV, F.V.

New method for calculating and designating hemoglobin volume.
Lab. delo 4 no. 6:19-20 N-D '58 (MIRA 11:12)
(HEMOGLOBIN)

DOBRYAKOV, G.A., inzhener.

~~Common trolley supply circuits for several overhead cranes. Energetik~~
Common trolley supply circuits for several overhead cranes. Energetik
(MIRA 10:3)
no.2:21-22 F '57.
(Cranes, derricks, etc.) (Electric engineering)

DOBRYAKOV, G.A., inzh.

Behavior of 35 kv. insulators of open distribution installations
exposed to strongly dust-polluted atmosphere. Energetik 8 no.5:17-
19 My '60. (MIRA 13:8)

(Electric insulators and insulation)

DOBRYAKOV, G.A., inzh.

Automatic control of the electric drive of a mobile conveyor.
Mekh.i avtom.proizv. 16 no.7:39-41 JI '62. (MIRA 15:8)
(Conveying machinery--Electric driving) (Remote control)

DOBRYAKOV, G.A., inzh.

Automation of the filling of coal bunkers using plow-type trippers.
Energetik 12 no.2:11-13 F '64. (MIRA 17:4)

DOBRYAKOV, L.D.; KANTOR, I.L.

Chebyshev's problem of uniform approximation for a finite system
of incompatible linear equations. Dokl. na nauch. konf. 1
no.3:46-49 '62. (MIRA 16:8)

(Linear equations)

DOBRYANOV, I.I.; KANTOR, I.I.

Solution of a system of inconsistent linear equations in the
Chebyshev sense. *Mat. zametki* 6 no.1:237-240 Ja-F '65.
(MIRA 18:4)

1. DOBRJAKOV N.F.
2. USSR (600)
4. Soils-Analysis
7. Dynamics of air-permeable soil when wet under field conditions as a method of evaluating its structural state, Pochvovedenie no.12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, unclass.

DOBRYAKOV, N.F.

Field method for determining soil structure on the basis of the
dynamics of air permeability. Pochvovedenie no.4:107-109 Ap '58.
(MIRA 11:5)

1.Kirovskiy sel'skokhozyaystvennyy institut.
(Soil physics)

USSR/Farm Animals - Swine.

Q-4

Abs Jour : Ref Zhur - Biol., No 18, 1958, 83422

Author : ~~Dobryakov, N.V.~~

Inst : Moscow Academy of Agriculture incni K.A. Timiryazev.

Title : Feeding Pregnant Sows.

Orig Pub : Dokl. Mosk. s.-kh. akad. in. K.A. Timiryazeva, 1957, vyp. 30, ch. 2, 278-283.

Abstract : During their entire pregnancy, sows of the first group received equal quantities of feed. Sows of the second group received intensified feedings, according to metabolism and energy increases, growth of the fetus, and progress of its development. For the first 2½ months of pregnancy, animals of the third group received plentiful quantities of feeds, and moderate rations during the last third of pregnancy. As compared with animals of the second group, animals of

Card 1/2

USSR/Farm Animals - Swine.

C-4

Abs Jour : Ref Zhur - Biol., No 18, 1958, 83422

the first group were by 4.1 percent more fertile, their offspring was by 2.4 percent larger in size, their milk productivity was by 22.6 percent higher, the development of their litters was by 11.5 percent more advanced, and after 2 months their piglets' weight gains were by 12.6 percent higher. As compared to animals of the third group, the animals of the first group had a 4.1 percent higher fertility, the development of their piglets was more advanced by 3.7 percent, and after 2 months weight gains of their piglets (per each sow) were 11.1 percent higher.

Card 2/2

DOBRYAKOV, N.V., Cand Agr Sci -- (diss) "Concerning the
feeding level of ^{grand sows} ~~young-bearing queen bees~~." Mos, 1958, 15
pp (Mos Order of Lenin Agr Acad im K.A. Timiryazev) 110 copies
(KL, 23-58, 109)

- 97 -

KARPENKO, A.F., kand. ekon. nauk; DOBRYAKOV, N.V., kand. sel'khoz. nauk;
BOYKO, V.S., otv. za vypusk.

[Planning green fodder production; handbook on the methods of practical work for the course "Production organization in socialist agricultural enterprises" given by the Department of Animal Husbandry] Planirovanie zelenogo konveiera; uchebno-metodicheskoe posobie dlia provedeniia prakticheskikh zaniatii po kursu "Organizatsiia proizvodstva v sotsialisticheskikh sel'skokhoziaistvennykh predpriatiiakh" na zootekhnicheskom fakul'tete. Novosibirsk, Novosibirskii sel'khoz. in-t, 1961. 5 p. (MIRA 14:7)
(Siberia, Western—Pastures and meadows)

KARPENKO, A.F., kand.ekon.nauk; DOBRYAKOV, N.V., kand.sel'skokhoz.nauk;
BOYKO, V.S., otv. za vypusk

[Planning replacements in a poultry flock and the output of poultry products; handbook on the methods of practical work for the course "Production organization in socialist agricultural enterprises" given by the Department of Animal Husbandry] Planirovaniye vosproizvodstva stada ptitsy i vykhoda produktsii ptitsevodstva; uchebno-metodicheskoe posobie dlia provedeniya prakticheskikh zaniatii po kursu "Organizatsiia proizvodstva v sotsialisticheskikh sel'skokhoziaistvennykh predpriiatiakh" na sotsialisticheskoi fakul'tete. Novosibirsk, Novosibirskii sel'khoz.in-t, 1961. 11 p. (MIRA 14:7)

(Poultry)

DOBRYAKOV, Nikolay Vasil'yevich, kand. sel'khoz. nauk; PARKHCHENKO,
V.S., red.; ONOSHKO, N.G., tekhn. red.

[Loose housing of cows] Bespriviaznoe sodержanie korov.
Leningrad, Lenizdat, 1962. 36 p. (MIRA 16:6)
(Cows)

DOBRYAKOV, O.I., inzh.; BRONSHTEYN, I.I., red.

[Safety manual for a motortruck driver] Pamiatka po tekhnike bezopasnosti shofera gruzovogo avtomobilia. Moskva, Energiia, 1964. 15 p. (MIRA 17:9)

1. Vsesoyuznyy institut po proyektirovaniyu organizatsii energeticheskogo stroitel'stva "Orgenergostroy." Kuybyshevskiy nauchno-issledovatel'skiy sektor.

DOBRYAKOV, O.I., inzh.; BRONSHTEYN, I.I., red.

[Manual for high climbers. Approved for publication by the Technical Administration of the Ministry for the Construction of Electric Power Plants and Networks, decision No.88 of June 2, 1962] Pamiatka po tekhnike bezopasnosti verkholaza. Odobreno k izdaniu resheniem Tekhnicheskogo upravleniia MSES No.88 ot 2 iunia 1962 g. Moskva, Energiia, 1964. 18 p. (MIRA 18:8)

1. Russia (1923- U.S.S.R.) Tekhnicheskoye upravleniye po stroitel'stvu elektrostantsii i setey.

DOBRYAKOV, O.I., inzh.; BAYEVA, V.F., inzh.; BRONSHTEYN, I.I.,
red.

[Safety manual for riggers] Pamiatka po tekhnike bezopas-
nosti dlia takelazhnika. Moskva, Energiia, 1964. 20 p.
(MIRA 18:7)

1. Russia (1923- U.S.S.R.) Tekhnicheskoye upravleniye po
stroitel'stvu elektrostantsii i setei.

5(4)

AUTHORS:

Dyatkina, M. Ye., Dobryakov, S. N.,
Shustorovich, Ye. M.

SOV/20-123-2-28/50

TITLE:

The Molecular Orbits of Radicals With Non-Alternant Cycles
(Molekulyarnyye orbity radikalov s neal'ternantnymi tsiklami)

PERIODICAL:

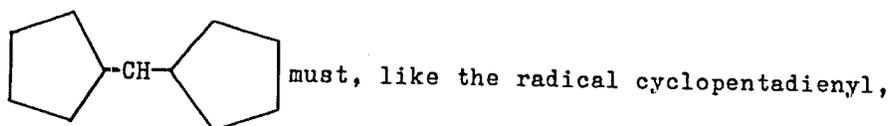
Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 2, pp 308-311
(USSR)

ABSTRACT:

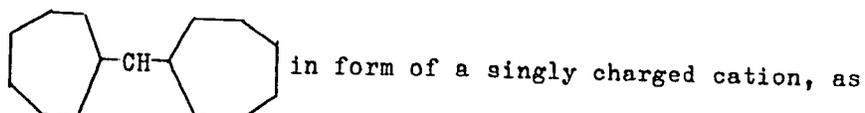
The authors first discuss the characteristic features of systems with non-alternant cycles which were determined by an earlier paper (Ref 1). These results induced the authors to investigate also other compounds with five- and seven- membered cycles, namely radicals which are analogous to diphenyl methyl and dinaphthyl methyl with cyclopentadienyl-, cycloheptatrienyl- and azulenyl residues. Calculations were carried out by the simplified method of molecular orbits under usual conditions. The systems investigated are given in a table, where also the number of connecting (svyazyvayushchiy), non-connecting (nesvyazyvayushchiy), and separating (razrykhlyayushchikh) levels of these molecules are mentioned. Various details concerning these systems are given; the following conclusions may be drawn:

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The Molecular Orbits of Radicals With Non-Alternant Cycles SOV/20-123-2-28/50



be stable in form of a singly charged anion, and



e.f. tropyli. In the same way also such systems must behave in which, apart from the non-alternant ring, also a condensed 6-membered ring exists. The radicals with heptaliny rests have a non-connecting level. Finally, some structural common features and differences between the structure of the systems listed in the table are pointed out. There are 1 table and 3 references, 2 of which are Soviet.

Card 2/3

DOBRYAKOV, S.N.

Formal-mathematical analysis of electron paramagnetic
resonance spectra with a superfine structure. Zhur.
strukt. khim. 6 no.1:39-46 Ja-F '65.

(MIRA 18:12)

1. Institut khimicheskoy fiziki AN SSSR. Submitted
July 5, 1963.

IVANOV, V.A.; IGNATENKO, N.N.; DOBRYAKOV, V.I., inzh., retsenzent;
KOL'DERTSOV, M.S., inzh., red.; SALYANSKIY, A.A., red.
izd-va; EL'KIND, V.D., tekhn. red.

[Introduction and economic efficiency of new equipment;
practice of industrial plants] Vnedrenie novoi tekhniki i
ee ekonomicheskaya effektivnost'; iz opyta zavodov. Mo-
skva, Mashgiz, 1963. 177 p. (MIRA 17:2)

DOBRYAKOV, Yuri

Atom is our friend. Zdorov'e 7 no.7:21-22 J1 '61. (MIRA 14:6)
(NOVO-VORONEZHCKII (VORONEZH PROVINCE)—ATOMIC POWER PLANTS)

DOBRYAKOV, Yu. N.

10G70

USSR/Who's Who - Military 7102.1200 Apr 1946
Amateur Radio 4805.0107

"Radio Heroes," Yu. N. Dobryakov, 2 pp

"Radio" No 1

Talks about the heroic work done by radio amateurs who fought with the Soviet forces during World War II. Gives several examples of the heroic deeds of these amateurs.

IC

10G70

DOBRYAKOVA, A. O.

"Studies on Electric Sensitivity of the Visual and Taste Recaptors",
Biul. Eksperim. Biologhii i Meditsini, Vol. 6, No. 3, 1932.

AUTHORS: Al'pert, Ya. L., Dobryakova, F. F., SOV/53-65-2-1/14
Chudesenko, E. F., Shapiro, B. S.

TITLE: On Some Results Obtained When Determining the Electron
Concentration of the Exterior Domains of the Ionosphere by
the Observation of Radiosignals Emitted by the First Earth
Satellite (O nekotorykh rezul'tatakh opredeleniya elektronnoy
kotsentratsii vneshney oblasti ionosfery po nablyudeniya
radiosignalami pervogo sputnika Zemli)

PERIODICAL: Uspekhi fizicheskikh nauk, 1958, Vol. 65, Nr 2, pp. 161-174 (USSR)

ABSTRACT: The first Sputnik was equipped with an automatic radio trans-
mitter which operated on frequencies of 20 and 40 megacycles.
The low degree of absorption of these radiowaves in the iono-
sphere made it possible to draw important conclusions on the
strength of these radiosignals with respect to the properties
of the ionosphere.
The authors of this paper discuss one of the possible methods of
utilizing the radiosignals emitted by the Sputnik; this method is
based upon the determination of the "radio-rising" and
"radio-setting" of the Sputnik, which takes place earlier and

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On Some Results Obtained When Determining the Electron
Concentration of the Exterior Domains of the Ionosphere
by the Observation of Radiosignals Emitted by the First
Earth Satellite

SOV/53-65-2-1/14

later respectively than optical rising and setting. These observations made it possible to determine an electron concentration (which is at about 320 km), of the concentration of neutral particles, as well as of the "boundary", where the atmosphere of the earth comes into contact with the interplanetary gas. It is not claimed that these first data obtained about the outer ionosphere are accurate; they merely serve as a first means of orientation with respect to prevailing conditions. The authors carried out their investigation on the basis of radio observations of the Sputnik which were made on the 5. June and 7. October 1957; among the available material which comprised about 600 statements of time of the beginning and end of radio signals there were from 60 to 70 cases which could be utilized in practice for the determination of

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$$\frac{\omega_c}{\omega} < \frac{\omega_c}{\omega_3} \text{ and } \frac{\omega_c}{\omega} \geq \frac{\omega_c}{\omega_3} \text{ respectively.}$$

On Some Results Obtained When Determining the Electron Concentration of the Exterior Domains of the Ionosphere by the Observation of Radiosignals Emitted by the First Earth Satellite

SOV/53-65-2-1/14

(ω = transmitting frequency of the Sputnik, ω_c = the boundary values of frequency, $\omega_c = 3,18 \cdot 10^9 N_M$, N_M = maximum of electron concentration). For electron concentrations higher than in the case of the maximum concentration the authors obtained the following formula:

$$N = 1,8 \cdot 10^6 e^{-z/5 \cdot 10^{-3}(z-320)} \quad (z = \text{height in km})$$

The region above an altitude of about 600 km is called "exosphere" by the authors. It was found that at altitudes of several 1000 km the state of the earth's gas shell approaches the state of the interplanetary gas. The authors obtained the following values for the electron density and the density of neutral particles:

altitude in km	200	320	400	1150	1800	2460	3120	
electrons	$\sim 10^5$	$1,8 \cdot 10^6$	$1,4 \cdot 10^6$	$\sim 10^5$	10^4	10^3	10^2	/ cm ³
neutral particles	$5 \cdot 10^9$	$\sim 2 \cdot 10^8$	$(6 \cdot 10^8)$	$(2 \cdot 10^5)$	$\sim 10^2$	$(2 \cdot 10^3)$	(20)	(< 1) / cm ³

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On Some Results Obtained When Determining the Electron Concentration of the Exterior Domains of the Ionosphere by the Observation of Radiosignals Emitted by the First Earth Satellite

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The following values were obtained for the electron recombination coefficient α and the solar radiation S :

$z_M \sim 320 \text{ km}$ S_M $0.2 \text{ erg/cm}^2\text{sec}$ $\alpha_M \sim 10^{-10} \text{ cm}^3/\text{sec}$
 $z_M \sim 400 \text{ km}$ S_M $0.3 \text{ erg/cm}^2\text{sec}$ $\alpha_M \sim 10^{-11} \text{ cm}^3/\text{sec}$ (Table 1)
 $z \gtrsim 1000 \text{ km}$ S_∞ $0.6 \text{ erg/cm}^2\text{sec}$ $\alpha_\infty \sim 10^{-12} \text{ cm}^3/\text{sec}$

(The index M denotes the maximum electron density in the respective region). The following values were obtained for the life of the electrons τ_e and the time between ionization acts τ_H :

	z (km)	τ_H	τ_e	
	≈ 320	$\sim 5 \cdot 10^7$	$\sim 5 \cdot 10^3$	
Card 4/5	~ 400	$\sim 3 \cdot 10^7$	$\sim 7 \cdot 10^4$	(26)

On Some Results Obtained When Determining the Electron Concentration of the Exterior Domains of the Ionosphere by the Observation of Radiosignals Emitted by the First Earth Satellite

SOV/53-65-2-1/14

z (km)	τ_H	τ_e
≈ 1150	$\sim 2 \cdot 10^7$	$\sim 10^7$
≈ 1800	$\sim 2 \cdot 10^7$	$\sim 10^8$
≈ 2450	$\sim 2 \cdot 10^7$	$\sim 10^9$

with $\tau_e \approx 1/\alpha N$ and $\tau_H \approx \frac{1}{\sigma S_{\text{eff}}}$

For the quasi-steady ratio $n/N \sim \tau_H/\tau_e$ with (26) the values given in brackets in table 1 are found for the concentration of the neutral particles. There are 9 figures, 1 table, and 9 references, 5 of which are Soviet.

1. Satellite vehicles
2. Radio transmitters--Performance
3. Electrons--Determination
4. Ionosphere--Properties
5. Radio waves--Absorption

Card 5/5

SCN/20-120-4-15/67

AUTHORS: Al'pert, Ia. L., Dobryakova, P. P., Chudsenko, E. P.,
Shapiro, B. S.

TITLE: On the Results Obtained by Determining the Electron Concentration of the External Region of the Ionosphere on the Basis of Radio Signals Emitted by the First Earth Satellite (O rezul'tatakh opredeleniya elektronnoy kontsentratsii vneshney oblasti ionosfery po nablyudeniyam za radiosignalami pervogo sputnika zemli)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 4, pp.743-746 (USSR)

ABSTRACT: The measurements mentioned in the title are based upon the determination of the time of the "radio-rising" and "radio-setting" of the satellite. In this way data were obtained concerning the distribution of the concentration N of the electrons in the ionosphere above the maximum concentration N_{max} : on these data are based hypothetical conceptions concerning the properties of the interplanetary gas. The measuring method and its utilization is described relatively

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SSV, 10-120-1-15, 57

On the Results Obtained by Determining the Electron Concentration of the External Region of the Ionosphere on the Basis of Radio Signals Emitted by the First Earth Satellite

in detail. The authors here investigate the results obtained from the radio signals transmitted by the satellite which were received on the 5, 6, and 7 October 1957 at 6 different points. Those cases were selected in which a pure "radio-echo" or "radio-setting" of the satellite could be observed on the frequency of 40 megacycles. For these points and for this period the most frequent altitudes of the various strata of the ionosphere are given. For H_{max} the value $1.8 \cdot 10^6$ is found. In an altitude of $500-600 \text{ km}^{max}$ (in the so-called exosphere) the temperature of the gas must not be lower than in lower altitudes. At this altitude ionization is nearly steady. In altitudes of about 2000 to 3000 km the concentration of electrons at the above mentioned conditions amounts to from 10^7 to 10^8 electrons per cm^3 , and therefore this volume must contain also the same number of positive ions. In these altitudes the terrestrial atmosphere probably borders upon the interplanetary gas. Also the density of the neutral particles is probably greater in altitudes of 300-400 km than has hitherto been assumed and mentioned in published works. There are

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On the Results Obtained by Determining the Electron Concentration of the
External Region of the Ionosphere on the Basis of Radio Signals Emitted
by the First Earth Satellite

007/20-120-A-15/57

4 figures, 1 table, and 5 references, 1 of which is Soviet.

PRESENTED: March 31, 1958, by V. A. Kotelnikov, Member, Academy of
Sciences, USSR

SUBMITTED: February 12, 1958

1. Electrons--Abundance 2. Ionosphere--Analysis 3. Radio
signals--Applications 4. Satellite vehicles--Applications

Card 3/3

YELINSON, M.I.; DOBRYAKOVA, F.F.; KRAPIVIN, V.F.; MALINA, Z.A.; YASNOPOL'SKAYA,
A.A.

Concerning the theory of field emission and thermoionic field
emission of metals and semiconductors. Radiotekh. i elektron

6 no.8:1342-1353 Ag '61.

(MIRA 14:7)

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